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EXAMINER

PATEL, SHAMBHAVI K

ART UNIT PAPER NUMBER

2128

DATE MAILED: 09/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/713,052

Applicant(s)

MOOSBURGER ET AL.

Examiner

Shambhavi Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claims 1-53 are pending.

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). It is noted, however, that applicant has not filed a certified copy of the foreign application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-53 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The Examiner asserts that the current state of the claim language is such that a reasonable interpretation of the claims would not result in any useful, concrete or tangible product. The claims do not produce a tangible output.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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1. Claim 1, 3-6, 9-12, 14, 16, 18-22, 24-26, 29-32, 34-39, 41, 43, 45, 47, 49, 51, and 53 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Benini ('Virtual Simulation of Distributed IP-based Design').

Regarding claims 1, 22, 32, 43, 49, and 53:

Benini is directed to providing a computer simulation model comprising:

- a. design automation software for enabling a designer to create a simulation model including interconnected component and/or subsystem models (**figure 1**). The IP provider stores simulation models of various components.
- b. simulation content file creation means for creating a simulation content file that includes information describing the simulation model (**section 3.2 'Example 2'; section 4.2**). The JavaCAD environment disclosed in the prior art can be used by the IP providers to represent the functionality of an intellectual property block.
- c. a simulation player software including means for reading the simulation content file (**abstract: JavaCAD environment**), that enables an end user to run the simulation model based upon the information in the simulation content file while prohibiting the end user from adding or removing component models, subsystem models or interconnections of the simulation model (**section 3.4**). The JavaCAD environment protects the IP blocks by splitting the remote specifications in two parts. The IP-protected part of the component specification is located on the IP-provider server as a private class, and this code is never sent to the client. Thus, the client cannot directly access and/or alter these blocks.

Regarding claims 43 and 53, Benini discloses an electronic simulation model (**Introduction**).

Regarding claims 3, 18, 24, and 34:

Benini discloses an electronic simulation model (**Introduction**).

Regarding claims 4, and 25:

Benini discloses information describing the simulation model that includes information specifying the component models and/or subsystem models comprising the simulation model (**section 3.1 ‘modules’**), and the interconnections there between (**section 3.1 ‘Connector’ paragraph 3**).

Regarding claims 5 and 26:

Benini discloses information describing the simulation model that includes simulation instructions specifying a sequence of operations to be carried out during running of the simulation model by the simulation player software product (**sections 3.3 and 4.2**). The JavaCAD environment contains a *functional model* of the intellectual property block. Thus, if a multiplier is being simulated, a method is provided for accurately implementing the functionality of the multiplier (**section 3.3 Example 2**). This method is contained within the simulation file.

Regarding claims 6 and 35:

Benini discloses information describing the simulation model that includes information defining a graphical representation of the simulation model, and wherein the simulation player software product is able in use to display said graphical representation on a computer display (**figure 2**).

Regarding claim 9:

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Benini discloses a simulation content file that comprises a software component for use with the design automation software product (section 4.2).

Regarding claims 10, 30, 37, 39, 45, and 51:

Benini discloses a simulation content file that further comprises content including data and/or document files (section 4 example 3), and wherein a user is able to control the content file creation component to include said content at the time of creation of the file (section 4.1).

Regarding claims 11, 31, and 38:

Benini a runnable simulation model comprising a model of a component or system product that is provided for distribution by a vendor for evaluation of said product by prospective customers ('Introduction' paragraphs 5 and 6).

Regarding claim 12:

Benini is directed to the system of claim 11 wherein the document and/or data files comprise data and promotional information relating to said product, and the simulation player software product enables the end user to open said files and inspect their contents (section 4).

Regarding claims 14 and 41:

Benini discloses a web site URL that identifies a web site of said vendor, and the simulation player software product enables the end user to open a web browser at said web site (Introduction paragraphs 4-6). The JavaCAD environment communicates with the IP providers through its servers. Thus, users are able to instantiate multiple blocks from multiple vendors through the JavaCAD environment.

Regarding claims 16 and 47:

Benini is directed to a method of providing a computer simulation model comprising the steps of:

- a. receiving a simulation model using design automation software said simulation model including interconnected component and/or subsystem models (**figure 1**). The IP provider stores fully functional simulation models of various components.
- b. creating a simulation content file that includes information describing the simulation model (**section 3.2 'Example 2'; section 4.2**). The JavaCAD environment disclosed in the prior art can be used by the IP providers to represent the functionality of an intellectual property block.
- c. providing the simulation content file to an end user (**section 4.1**)
- d. receiving instructions from the end user to run the simulation model using a simulation player software (**abstract: JavaCAD environment**) that includes means for reading the simulation content file, and that enables the simulation model to be run based upon the information in the simulation content file while prohibiting the addition or removal of component models, subsystem models, or interconnections of the simulation (**section 3.4**). The JavaCAD environment protects the IP blocks by splitting the remote specifications in two parts. The IP-protected part of the component specification is located on the IP-provider server as a private class, and this code is never sent to the client. Thus, the client cannot directly access and/or alter these blocks.

Regarding **claim 47**, Benini discloses an electronic simulation model (**Introduction**).

Regarding claims 19 and 20:

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Benini discloses providing simulation content files by distributing the file using an information network and the Internet (**figure 1; Introduction paragraphs 4-6**).

Regarding claim 21:

Benini is directed to the method of claim 19 wherein said step of distributing includes making the simulation content file available for download from a website (**section 3.4 paragraph 4**).

Regarding claim 29:

Benini discloses the computer program product of claim 22 wherein the step of creating the simulation content file is performed by a software component forming an element of the simulation player software environment (**section 3.1**).

Regarding claim 36:

Benini discloses the computer program product of claim 32 wherein the step of reading the simulation content file is performed by a software component forming an element of the simulation player software environment (**section 3.2**).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claim(s) 2, 8, 17, 23, 27, 33, 44, 48, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Benini** ('Virtual Simulation of Distributed IP-based Design').

Regarding claims 2, 17, 23, 33, 44, 48, and 50:

Benini is directed to design automation that enables the designer to identify parameters of the simulation model, component models and/or subsystem models that may be inspected and/or varied by the end user (section 4.2), and to specify one or more allowed values of said parameters,

- a. wherein the simulation content file further includes information identifying said parameters and allowed values. A skilled artisan would obviously include this feature within the environment because all parameters have to meet the specification so that the design will operate within the tolerances.
- b. wherein the simulation player software product enables the end user to vary only said identified parameters of the simulation model, component models and/or

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subsystem models to only said allowed values (sections 3.3, 3.4 and 4.1). The designer only has access to the public part of the component specification that is provided by the IP vendor. This is used to instantiate remote components within the specification, and the designer can then set the appropriate parameters.

Regarding claims 8 and 27:

Benini discloses allowed values of said parameters that comprise one or both of a range of values specified as a minimum value and a maximum value, and a list of discrete values. A skilled artisan would have obviously included this feature in the environment because all parameters have to meet the specification (a list of acceptable values) so that the design will operate within the tolerances (i.e. a minimum and maximum value).

3. **Claim(s) 7 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benini ('Virtual Simulation of Distributed IP-based Design') in view of Huack ('Data Security for Web-based CAD').**

Regarding claims 7 and 28:

Benini does not explicitly disclose creating the simulation content file creation by encrypting at least a part of the simulation content file to prevent unauthorized parties from accessing and/or altering the information describing the simulation model. Hauck is directed to providing security for Web-based CAD through encryption (Huack: sections 3.1, 3.8, 4, and 5). At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the teachings of Benini and Huack because the encryption technique taught by Huack is the key to the development of future Internet-based CAD

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systems, since serious CAD users will be unwilling to use any CAD methodology that risks exposing their designs to outsiders (**Huack: abstract**).

4. Claim(s) 13, 15, 40, 42, 46, and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benini ('Virtual Simulation of Distributed IP-based Design').

Regarding claims 13, 15, 40, and 42:

Benini does not explicitly disclose a digital image comprising a company logo of said vendor, and the simulation player software product is able in use to display the logo on a computer display, and wherein the contact details include one or more of a physical address, an email address, a telephone number and a fax number, and the simulation player software product is able in use to display said contact details on a computer display. It would be obvious to include a company logo and contact information such as a telephone number so that the user may recognize what company makes the IP component they wish to purchase and determine how to contact the vendor.

Regarding claims 46 and 52:

Benini discloses the system of claim 45 and the product of claim 51 wherein:

- a. simulation model comprises a model of an electronic component or system product (**Introduction**) and the computer simulation model is provided for distribution by a vendor for evaluation of said product by prospective customers (**'Introduction' paragraphs 5 and 6**).
- b. the document and/or data files comprise data and promotional information relating to said component or system product, and the simulation player software product enables the end user to open said files and inspect their contents (**section 4**)

- c. the web site URL identifies a web site of said vendor, and the simulation player software product enables the end user to open a web browser at said web site (**Introduction paragraphs 4-6**). The JavaCAD environment communicates with the IP providers through its servers. Thus, users are able to instantiate multiple blocks from multiple vendors through the JavaCAD environment.

Benini does explicitly not disclose the system of claim 11 wherein the digital image comprises a company logo of said vendor, and the simulation player software product is able in use to display the logo on a computer display, and wherein the contact details include one or more of a physical address, an email address, a telephone number and a fax number, and the simulation player software product is able in use to display said contact details on a computer display. It would be obvious to include a company logo and contact information such as a telephone number so that the user may recognize what company makes the IP component they wish to purchase and determine how to contact the vendor.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shambhavi Patel whose telephone number is (571) 272-5877. The examiner can normally be reached on Monday-Friday, 8:00 am – 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on (571) 272-2279. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**KAMINI SHAH
SUPERVISORY PATENT EXAMINER**

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